PROFESSIONAL ENGINEER

Official Publication of American Association of Engineers

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Vol. 41 No. 1

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M. E. McIVER, Editor

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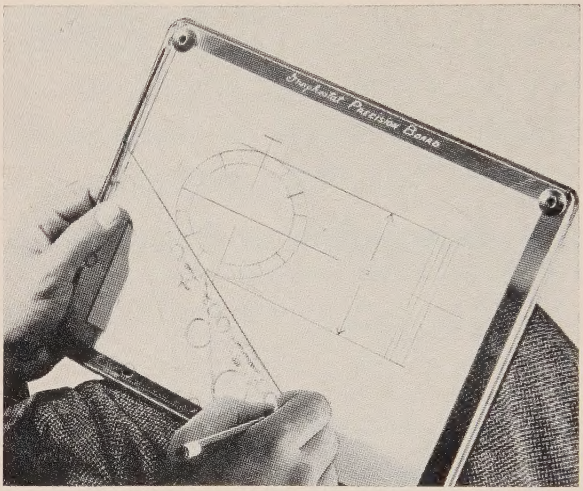

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Presidential Personalities in A.A.E.

The right pilot at the right time

M. E. McIver, Secretary, A.A.E.

ALTHOUGH the presidency of the organization is the highest honor American Association of Engineers can confer on its ablest and most evoted leaders, the men who have held that high office have, in accepting it, estowed upon rather than received prestige from the organization. In he early days, particularly, men who identified themselves with A.A.E. ere regarded as defying both "traditionalism" and the aristocratic socieies who were its chief protagonists. As the program of A.A.E. gradually ained acceptance, its heresies became respectable. Somehow though, this id not lift from A.A.E. the stigma of "radicalism." It was remembered nly that A.A.E. endorsed "extreme" innovations—not that those innovaions were eventually accepted by the other societies and embodied in their wn aims and activities. The men who unreservedly cast their lot with .A.E. in the early days did so at considerable personal risk in the way f professional advancement. They were men who had already proved hemselves engineers of outstanding ability. They did not need to court avors from the giants of the profession or the societies. They realized that restige is not a measure of professionalism. They chose to serve the proession through the agency best suited to their purposes—the American ssociation of Engineers.

Great hearted men are listed on the roster of A.A.E. presidents. One ull issue of the magazine might well be devoted to these men to their rofessional achievements and to the causes they served through A.A.E. n this editorial four will be honored as typical of certain Association aims hich they outstandingly advanced. James H. Griffin, whose passing in eptember of last year, was a great loss to the profession, was president f A.A.E. in 1930-1931, when the depression filled every engineer's soul ith consternation. His steadying influence was felt throughout the Assoation. He was a man whom people unreservedly trusted. Two qualities spired such trust. He had a remarkable gift for penetrating the murk of nflicting opinions and recognizing the basic issue, and a kindly, unselfish,

dispassionate way of stating what he believed to be the truth. He had gre
natural dignity, but he was never pompous. Although the term has bee
cheapened in advertising slogans “distinction” in its best and fullest mea
ing is the word that best describes the delightful personality of this ma
It was this distinction which made him supremely valuable to A.A.
throughout the years of his membership. Again and again he represent
the Association at meetings and conferences of great importance. H
prestige was reflected upon the Association in such gatherings. He w
the organization's Chevalier Bayard, the knight *“sans peur et sans reproche*

Another president, lost to us recently in death, who proudly wore t
Association's colors into battle, was Colonel Webster L. Benham, Consu
ing Engineer of Oklahoma. He more than any other one man carried t
Association successfully through internal conflicts. It was his courage a
fairness and astuteness that ended the internecine conflict over the re
tionship of headquarters and chapters. He had many of the attribut
ordinarily associated with the South, but somehow, in his Association wo
he was the typical Westerner. He was practical, outstandingly so, but he h
the kind of imagination which gave sweep and depth to his practical
He was as busy as other successful men, but the demands of his perso
career never seemed to keep him from answering a call from A.A.E.
head a committee delegated a tough piece of work. As soon as he to
the helm the group he directed surged forward, reassured and hearten
by his sure leadership.

Engineering societies all over the world have conferred honor up
Dr. David B. Steinman, whose biography appears in this issue. The Pa
President's pin conferred by A.A.E. is a modest tribute to the genius
this great engineer and humanitarian in comparison with society's accola
Nevertheless, Dr. Steinman has chosen to do some of his finest work f
the profession through A.A.E. With Morris L. Cooke he worked to cryst
lize the Association's Principles of Professional Conduct and he, personal
wrote its classic “Vow of Service.” It was through A.A.E. that he ga
impetus to registration when other societies were lukewarm toward t
movement, or actually antagonistic. Dr. Steinman is an indomitable lead
and a skilled tactician. American Association of Engineers is proud
number him among its past presidents.

Fraternalism was the ideal which actuated the founders of A.A.
and it has been the moving force in the organization thruout its life. T

Ever since its inception, A.A.E. has worked toward one objective: t
molding of all branches of the profession into an inclusive group. It h
been the originator and sponsor of practically every constructive moveme
toward the improvement of the professional economic status of the Engine

Edmund J. Fitzmaurice—19

We must continue to maintain a high standard of ethics and of profes-ional performance. We must see that proper recognition is given to the ork of the engineer and that his works are commemorated in some suitable ashion.

Webster L. Benham—1924

his ideal thousands of men have given allegiance in their unswerving sup-ort of the Association. One man, however, would probably be chosen, f a poll were taken, as the embodiment of fraternalism. This man is dmund J. Fitzmaurice of Philadelphia. He was president of A.A.E. in 945 but he has served on the Board of Directors for several terms at idely spaced intervals. When he directed the Associattion's never to be orgotten convention in Philadelphia, there were members who thought e name of the town should be changed to "Fitzadelphia." He *was* the ey to the city. Everyone who has served with him on the Board or on ommittees gets a look of incandescence when his name is mentioned. Of ourse, when an unpleasant situation arises, "Fitz" is not reluctant to carry e fight to the enemy's territory, but he doesn't look for trouble. He is overwhelmingly friendly and unselfish, so sincerely honest, that he ex-ects nothing less from others. If every other engineer in the world had itz's unbounded love for his profession and his fellowman, engineering ould have no great problems.

Griffin, whose personal charm and distinction made him the Associa-on's most effective ambassador; Benham, who could do the necessary ard things without bitterness and who was always available in a crisis; teinman, who knew how to use the facilities of the Association in the most fective way to gain worthwhile ends; and Fitzmaurice, the great heart f the Association—these men typify the versatility and devotion, the cour-ge and imagination of men who have honored A.A.E. by accepting the residency of the organization in order to serve its specific aims:

"To promote the Social and Economic Welfare of the Engineer, to timulate Public Service in the Profession and to Encourage and develop e Efficiency of the Engineer."

From the very nature of our work, we are continually seeking new fields activity, trying out new methods, chartering new courses. We have been ened to a laboratory for the testing of new methods in the field of pro-ssional relations, and one of the fruits of our efforts has been the awaken-g of other engineering organizations to the need for strengthening the ofession.

James H. Griffin—1931

Believing that young engineers especially would be interested in a story of a young man's dream and how he worked to make it come true, we invited the Eminent Engineer Dr. D. B. Steinman to prepare this short but fascinating story for our readers.

* * *

Here is a photograph of Dr. Steinman receiving the David B. Steinman Medal of Recognition of the Professional Engineers of France. E. M. Guiton, President of the Professional Engineers of France, presented the medal at a reception in his honor at Paris, July 29, 1954. Mrs. Steinman was an honored guest.

Bridges: From Dream to Realization

By D. B. Steinman, Consulting Engineer

TO ME ENGINEERING has been a succession of inspiring influenc
of impelling ambitions, of obstacles overcome, and of dreams con
true. The realization—one after another—of dreams that seemed hop
less leaves me reverent and humble.

My career in bridgebuilding is a boy's dream come true. At a ve
early age I came to know the Brooklyn Bridge intimately and reverentl
As I wondered how so marvelous a work could have been created, I wa
fired with the ambition to become a builder of bridges. In a backgroun
of poverty, this far-flung ambition seemed beyond the possibility
attainment.

Hunger for engineering knowledge became my ruling passion. B
cause I lacked the tuition fees to go to an engineering school, I studi
architectural drawings, mathematics, chemistry and applied mechani
(commencing at the age of thirteen) at the Evening High School, an
engineering at Cooper Union, while taking the liberal arts and scien
courses at the College of the City of New York. This was before w
had an engineering school at the City College, but I used my persuasi
powers to secure an intensification of the engineering content of th
curriculum. As a result, I secured wonderful basic training in strengt

of materials, thermodynamics, prime movers, and hydraulics, in addition to all of the courses in physics, chemistry, mathematics, languages, literature, art, writing, public speaking, astronomy, mineralogy, psychology, history, philosophy, and economics. I thus had a liberal education and the benefit of six years of intensive college training in pure and applied mathematics before starting my more technical education.

My teachers were truly inspiring. They must have recognized my hunger for an education and they gave me every possible encouragement. I was awarded twelve medals and prizes in various subjects, including pure mathematics, applied mathematics, logic, metal work, public speaking and astronomy.

I was planning to teach in the public schools for some years after graduation in order to save enough money to go to Columbia to study engineering. I took the examination for the license to teach Manual Training in the public schools, and passed at the top of the list. I was also preparing to take the examination for the regular teacher's license. But about a week before graduation, Professor Alfred G. Compton, Head of the Physics Department, called me aside and said, "Mr. Steinman, you have been awarded a three-years' teaching fellowship in Applied Mechanics." That was a life-saver. It enabled me to go directly to Columbia for my engineering studies, saving me years of delay in getting started in my chosen calling.

My ambition gave me superhuman capacity for work. Although I was studying engineering at Columbia and at the same time teaching at the City College during the day and at the Stuyvesant Evening High School at night, I somehow found spare time to take graduate courses and to do graduate research for a Master's degree in physics, mathematics, and mechanics, and for a Doctor's degree in engineering mechanics, and mathematics, so that I completed the work for three degrees from Columbia almost concurrently, instead of one alone. Also, at the same time, I translated two classic works on Bridge Engineering from the German (one on Theory of Arches and Suspension Bridges, and the other on Plain and Reinforced Concrete Arches) and arranged for their publication.

From the faculty at Columbia I received further inspiration and encouragement. The latter took tangible form. I was awarded two scholarships, one in the engineering school and one in the graduate school.

For my graduation thesis for the C.E. degree, I chose "The Design of the Henry Hudson Bridge as a Steel Arch." I commenced this early in 1908, a year and a half before graduation. I was determined to make this design a model of technical, analytical, and artistic excellence. Twenty-five years later this bridge project came to me as a real job for my firm. The same location and the same type. A student's dream come true!

Recently I was engaged to rebuild and modernize the old Brooklyn

Bridge, increasing its capacity from two lanes to six lanes of moder traffic. The world-famous structure that had inspired me in my yout had come back to me at the height of my career. The crowning work o the pioneer master builders had been entrusted to my professional ski and care for lengthening of its life and enlargement of its usefulnes It was another dream come true.

Early in my career, I became a "one-man campaign for beauty i bridges." I toured the country with illustrated lectures showing ho beautiful bridges can be made. My writings on the subject have bee published around the world, translated into many languages. The Ame ican Institute of Steel Construction established annual awards for th most beautiful bridges in America. Six of my bridges have won the artistic bridge awards.

Including such notable bridges as the Florianopolis Bridge in Braz the Carquinez Straits Bridge in California, and the Mount Hope Bridg in Rhode Island, the St. Johns Bridge in Portland, Oregon, the Wald Hancock Bridge in Maine, the Thousand Islands International Brid over the St. Lawrence River, the Henry Hudson Bridge in New Yor the Constitution Bridge in Puerto Rico, the Kingston-Rhinecliff Brid over the Hudson River, the record-breaking Mackinac Bridge in Mic igan, and some 300 other bridges in this country and abroad, my brid engineering engagements have extended to five continents (every co tinent except Africa) and have included bridges in Australia, Braz Siam, Bolivia, England, Denmark, Haiti, Spain, Puerto Rico, German Quebec, Ontario, and British Columbia; and in the United States fro Maine to California.

I have always recognized that "Every man is a debtor to his Profe sion" and, in return, my contributions have been recognized. I ha received many honors and awards from many lands.

In 1947, I received an honorary degree from the City College, an in 1953 from Columbia University. I was deeply moved. I said to m wife, "You know, my dear, when I was a young man, dreaming, hopin and praying for a chance to go to college, I gladly would have settle for a chance to get one college degree. Now I have fourteen of them. all seems too wonderful to be true."

Because the fellowships and scholarships I received during my st dent days meant so much to me in enabling me to make my dreams con true, I want to repay my debt of obligation. That is why my family an I have established the David B. Steinman Foundation, making gran to engineering schools for student aid in the form of scholarship awar and loans. It is my hope to inculcate, in the recipients, the same feelin of grateful obligation to make future repayment, so as to help mak the funds self-perpetuating. In this way, I am trying to start a mor "chain-reaction" of opportunity and obligation. All of this is in line wi the text that has influenced my life:

"Freely ye have received, freely give."

The Bridge that Could Not be Built

The story of the Mackinac Bridge has been told many times and in many parts of the world. The May issue of "Civil Engineering" will carry a story by Dr. Steinman entitled "How the Mackinac Bridge was Designed for Aerodynamic Stability." The bridge spans the 4-mile wide Mackinac Straits which separates the Upper and Lower Michigan peninsulas.

Recent National and International Honors Awarded to Dr. D. B. Steinman

- rand Prix International de l'Invention, Paris, 1955.
- rench Legion of Honor (Chevalier), 1954.
- orman Medal, American Society of Civil Engineers, 1951.
- octor of Civil Engineering, University of Bologna (Italy), 1954.
- octor of Science, University of Ghent (Belgium), 1953.
- old Medal and Diploma of Honor, International University Pro Deo, Rome, 1954.
- old Medal "Reconnaissance des Ingenieurs Professionnels Francais" (the "David B. Steinman Medal"), Paris, 1954.
- ight Commander of the Order of the Gold Cross, Rome, 1952.
- edaille de la Reconnaissance Francaise, Paris, 1954.
- octor of Science, Columbia University, 1953.
- Cross of Commander, Grand Prix Humanitaire de Belgique (Belgium), 1952.
- Chevalier de l'Ordre du Merite Scientifique (France), 1953.
- Award for Distinguished Professional Service, N.S.P.E., 1952.
- Life Fellow, Royal Society of Arts (Great Britain), 1952.
- Chevalier de l'Ordre de la Croix de Lorraine, Paris, 1952.
- Life Member, Phi Beta Kappa Associates, 1951.
- First President, Union Internationale des Ingenieurs Professionnels, Paris, 1953-56.
- Memorial Cross of the Greek-American Legion, 1953.
- Gold Medal and Diploma of Honor of the City of Paris, 1953.
- Cross of La Fundacion Internacional Eloy Alfaro, Republic of Panama, 1953.

Honorary President, American Chapter of the Knights of the Cross of Lorraine (U.S.A.) 1953.

Honorary Member, Legion Belge (Belgium), 1952.

Honorary Member and Medal of Honor, Veteranos del Servicio Militar Nacional (Mexico), 1953.

Gold Medal, Centre de Liaison des Ingenieurs Professionnels it Inventeurs de France, 1954.

Cross of Commander of Artistic Merit (France) 1954.

Gold Medal and Diploma of Honor of the Renaissance Francaise, Paris, 1953.

Grand Croix de l'Education Civique, Paris, 1954.

Gold Medal and Diploma of Honor of the French Society of Inventors, Paris, 1954.

Grand Honorary Member (with medal and scroll) of the Union Democratica Americana, Havana, 1953.

Medal and Diploma of Honor of the Societé Nationale des Medailles Civils, Paris, 1954.

Doctor of Science, Rensselaer Polytechnic Institute, 1953.

Honorary Member, International Institute of American Ideals, 1953.

Doctor of Laws, Alfred University, 1953.

Cross of Commander of Artistic Education (France) 1954.

Member, Academie Diplomatique Internationale.

Doctor of Engineering, Manhattan Co lege, 1953.

Gold Medal and Diploma of Honor l'Union Internationale des Ingenieu Professionnels (as Founder and Fir President), Paris, 1953.

Croix de Grand Officer de l'Encourag ment Public, Paris, 1954.

Grand Croix de l'Etoile du Bien et Merite, Paris, 1954.

Doctor of Science in Engineering, Ol Northern University, 1953.

Grand Cross of the Greek Order Saint Dennis of Zante, 1954.

Commander of the Military Order of t Golden Cross of Cyprus, 1954.

Doctor of Engineering, Michigan C lege of Mining and Technology, 19

Doctor of Science, Haute Academ Latine Internationale, France, 1954

Trustee and Vice President of t Board, French University of N York (Ecole des Hautes Etudes), 19

Doctor of Higher Learning (Vi Ratna) Shri Bhuvaneshwari Pi Kathiawas, India, 1953.

National Honorary Member, Chi Ep lon, 1951.

William Procter Prize (highest awar of the Scientific Research Society America, 1953.

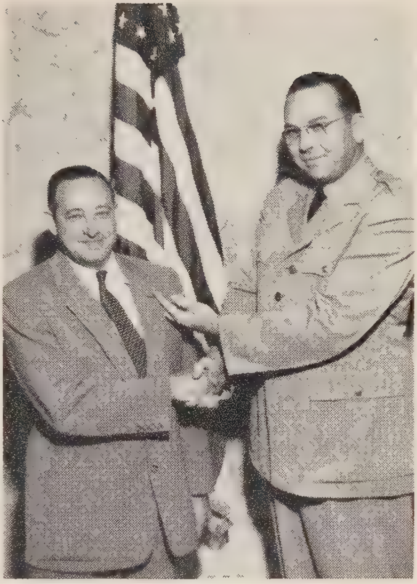
President, New York Academy of S ences, 1952-53.

Recent Notable Bridges

Designed by Dr. D. B. Steinman

Mackinac Bridge, Michigan (Span 3800 ft.), 1953-57.
Kingston-Rhinecliff Bridge, over Hudson River, 1952-56.
Raritan River Bridge, New Jersey, 1952-54.
Constitution Bridge, San Juan, Puerto Rico, 1952-54.
Three-Level Bridge, Garden State Parkway and New Jersey Turnpike, 1948-50.
Deegan Boulevard Express Highway, New York City, 1946-54.
Reconstruction of the Brooklyn Bridge, New York City, 1950-54.
New Haven Bridge, Greenwich-Killingly Expressway, Connecticut, 1954-57.
Military Bridges for the U. S. Army, 1941-52.
Bridges for the New York State Thruway and Erie Thruway, 1950-56.
Messina Straits Bridge (to join Sicily to Italy)—Span 5000 feet (to be the longest in the world)—Preliminary Design and engineering studies, 1950-55. Construction, 1955-1962.

John H. Wilson of San Mateo, California, a member of the American Association of Engineers for many years, was recently awarded a bronze 10-year pin. The photograph shows Colonel Edwin M. Eads, officer-in-charge of the Air Force Installations Representative Office, South Pacific Region, making the presentation, at ceremonies held in San Francisco.



Government Official Honored

R. JOHN H. WILSON of San Mateo, California, formerly of Boon-
ton, New Jersey, was recently awarded a bronze 10-year pin for his
ars of government service. The presentation ceremony was held at 630
nsome Street, San Francisco, California. The pin was presented by
lonel Edwin M. Eads, who is officer-in-charge of the Air Force Installa-
ns Representative Office, South Pacific Region, where Mr. Wilson is em-
yed. Approximately thirty Air Force officers and civilian employees wit-
ssed the occasion. This included visiting officers from Headquarters, U. S.
r Force, Washington, D. C.

Prior to awarding the pin, Colonel Eads pointed out that a consistently
h standard of conduct and efficiency was required to earn the pin, and
commended Mr. Wilson for maintaining this standard throughout his
vernment career.

The pin was long overdue inasmuch as he has completed 19 years
government service. However, the Air Force is initiating the award of
bronze 10-year pins this year for the first time. Because of the length
service held by Mr. Wilson, he was singled out as one of the first Depart-
nt of the Air Force employees to receive the pin.

He began his career in 1936 at the Picatinney Arsenal, Dover, New
sey, and this year he starts his 20th year of service. During this time
has held a number of top engineering positions both in the United States
abroad. During the early years of WW II he went to Brazil where

he assisted in the development of a number of international airports. At t
end of WW II he returned to the U. S. and was employed at Millville A
Force Base, New Jersey, and at the Rome Air Depot, Rome, New Yo
Following this, he went to Japan, where he was Civilian Chief of the En
neering Division for Far Eastern Air Forces. He accepted a position
Deputy Director of Installations for Headquarters Command, Washingto
D. C., when he returned to the states early in 1952.

In November 1952, he assumed his present position, which is that
Deputy AF Installations Representative, South Pacific Region. In th
position he monitors Air Force new construction activities throughout t
southwest portion of the United States and Pacific Ocean Islands valu
at approximately 450 million dollars. His exceptional ability in this positi
won him the Air Force Superior Accomplishment Award earlier this ye
He holds the Air Force "Commendation for Meritorious Civilian Servi
for his work in Japan during the Korean hostilities.

Mr. Wilson has been an active member of A.A.E. for a number
years and his visits to Headquarters whenever he is in Chicago, have b
most inspiring, and his letters when in Japan cordial and always so welco

There was an Engineer who had a wife,
She liked to Feed Birds. . .*

IT WAS LAST MARCH when the great White House squirrel myste
made headlines here and all over America—only to be dropped for la
of information. One day President Eisenhower, swatting golf balls
the lawn, became aware of the unseemly number of squirrels scamp
ing across the grass, darting up and down trees, peering through t
foliage.

"Where," he demanded, "do they all come from?"

Six months later the answer can be revealed. It traces in large pa
to a quiet, broad-shouldered engineer named Don Glassie. Among oth
things, Glassie designs booby traps for the Army. He also, it turns o
has designed a trap for squirrels.

It happened when he was living in Chevy Chase, about six miles fro
the White House. His wife, a bird-lover, used to put tidbits in a trou
outside her window for her small feathered friends. When free-loadi
squirrels started beating the birds to the goodies, she asked her husba
for help.

Glassie tried fitting a metal umbrella over the trough. The squirre
simply climbed in under it. Glassie would not consider either pois
or shooting. Then it came to him: a simple, humane trap. And wh
he had built one and set it, he realized the best place to deposit t

---

*Reprinted from September 11, 1955 issue
Parade, Washington, D.C.

quirrel Trapper, Don Glassie, Member A.A.E. Washington Tourists try to tempt 'hite House squirrels to the fence with peanuts. (Courtesy Parade, "The Sunday Picture Magazine")

:cupants would be the White House grounds. In that celebrated uirrel refuge the little creatures would thrive undisturbed, adding to e pleasure of tourists and helping to keep Nature alive in the heart Washington.

On his way to work in the mornings, Glassie began emptying his ap through the White House fence. He kept it up until at least 100 uirrels had thus been transferred. As expected, they were happy in eir new home. They also began, as squirrels will, to be fruitful and ultiply.

By last March the results were only too apparent. The President's 'hite House putting green was, for all practical purposes, overrun with uirrels. Anxious aides began trapping them and deporting them to arby Rock Creek Park, which, ironically, extends at one point to within few blocks of Glassie's home in Chevy Chase.

It was this aspect of the story that made the front pages. Squirrel-vers, aided by a Senate speech delivered by Sen. Richard Neuberger)., Oregon), cried that the squirrels should be allowed to stay at the hite House. And finally the President agreed.

The controversy still lives in some quarters. Take the Boy Scout legation that won a trip to Washington and the right to lunch with y Senator. They picked Neuberger, who modestly asked why. "Be-use," came the reply, "you're a friend of the squirrels."

But the man who really deserves a Boy Scout merit badge is an sung engineer named Don Glassie.

Illinois Engineering Council

At the December, 1955 meeting of the Illinois Engineering Council, the following officers were elected: President: Ellis Danner, Professor, Highway Engineering, University of Illinois (A.A.E.). First Vice President: Daniel K. Chinlund, Div. Plant Supt., Illinois Bell Telephone Co. (A.I.E.E.) Chicago. Second Vice President: John G. Duba, 407 City Hall, Chicago (I.S.P.E.). Secretary-Treasurer: Marvin V. Maxwell, Assist. Engr., Service Manager, Westinghouse Electric Corp. (A.S.M.E.), Chicago.

At this meeting appointments to fill the vacancies on the Illinois Examining Board was discussed at length. In the report of President Marston on the subject he stated that during his regime member societies had been asked to wire Governor Stratton as of a specified date to see that appointments were made. However, just prior to this date Judge Binks submitted a list of the examining committee members. It later developed that vacancies had been filled by firm appointments but reappointments were not made except by the inference of including these names on the list. In addition to the three reappointments carried over from September of 1954, there is need of three appointments or reappointments. The Council through its Executive Committee asked Judge Binks to reappoint all members whose terms expired in 1954 and to reappoint Messrs. Lane and Andrews, but to choose a replacement for Mr. Egan from the list of I.E.C. approved candidates on file. Since no action had been taken as of the December meeting, the names of James G. Clark and Norman H. Gundrum were added.

The report of the January 21st meeting of the Executive Committee of the I.E.C. listed as principal activities for the ensuing year the following:

1. Republication of the Constitution and By-Laws.
2. The terms of six members of the Professional Engineers Examining Board have expired and action will continue to be taken to obtain their reappointment. Although these members a continuing to function beyond their a pointed term it is believed that th situation could have a serious eff on the status of Registered Professic al Engineers.
3. A continuation of the study of t status of engineers in Public Wor
4. Co-ordination with other techni groups of legislation affecting en neers.
5. Preparation and publication of brochure on the history and acco plishments of the Illinois Engineeri Council.
6. Continued study of a policy presentation of Registered Professi al Engineers certificates.
7. Encourage member societies to ca reports of I.E.C. meetings in their p lications.

At the March 10th meeting, Secreta Treasurer Maxwell reported that $150 U.S. Savings Bonds, Series J had b purchased from funds of the Council.

Again discussed was appointments the Professional Engineers Examini Board for Illinois and the secretar report carries this paragraph: "The fa ure of the State Administration to act recommendations of the Illinois En neering Council for members of the P fessional Engineers Examining Board an old story. Some progress has b made in that appointments for the th vacancies were made by Judge Binks. T other members of the Board are contin ing to serve even though the tenure office of some has expired. It is essent that the appointments to the Board brought in conformance with the Prof sional Engineers Act. President El Danner will discuss this problem w Judge Binks, and with Governor Str ton if found to be necessary."

Representing the Association on Council are the following: William Mauer, President, Illinois State Asse bly, A.A.E., M. E. McIver, Secreta Ellis Danner, Herman A. Wagner, a Donald M. Cook, Directors.

Cecil A. Eby, Bethesda, Md., Member of American Association of Engineers, receiving commemorative plaque from D. C. Danielson, General Sales Mgr., New Products, Inc.

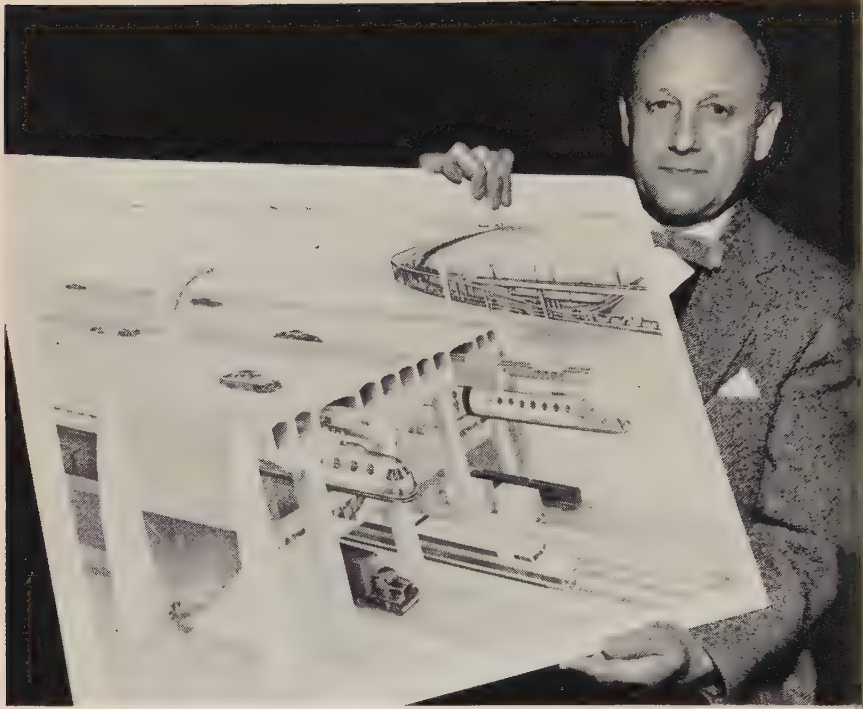
Cecil A. Eby, Million Dollar Salesman

From the September 1955 issue of the Home Building Monthly, published by the Home Builders Association of Metropolitan Washington, (D.C.) on whose Board of Directors is our past president, Donal L. Chamberlin, we reprint the following news-item about one of our members, and reproduce the accompanying photograph:

Cecil A. Eby, of Bethesda, is shown receiving a commemorative plaque from D. C. Danielson, General Sales Manager of New Products, Inc. Mr. Eby is associated with the James A. Cassidy Company Company, and the plaque was presented in recognition of his service and achievement in the sale of Modernfold Doors in the Eastern area.

The plaque is inscribed "No. 1 Modernfold Salesman in U.S." and Mr. Danielson enumerated the following as reasons for the award: 1. Total sales of approximately one million dollars. 2. Ten years of loyal service. 3. Service beyond duty. Mr. Eby's devotion to his occupation was illustrated when, while confined to a hospital with a broken hip, and in traction, he obtained an order from the hospital, completing the entire transaction while hospitalized.

The award was made recently at the plant at New Castle, Indiana. Mr. Eby has been quite active in the civic affairs of the county and is a former vice chairman of the Maryland—National Capital Park and Planning Commission.



M. C. Bayer, Member A.A.E., and his Novel High Speed Highway Plan

Novel High Speed Highway Plan

From the January 1956 issue of "Convairity," house organ of Convair, San Diego, we quote the following story concerning one of our members, M. C. Bayer, entitled "SD Man's imagination Develops Novel High Speed Highway Plan."

San Diego to Los Angeles in 35 minutes! Fort Worth to Dallas in less than 10! And no airplanes involved.

Transportation would be by electric passenger carriers operating as part of a "super" super-highway envisioned by M. C. Bayer of engineering at Convair, San Diego.

Bayer calls it a Ski Highway Speedrail System. Actually it combines the major methods of ground travel. First there are six traffic lanes (three in each direction) for heavier trucks, buses, etc., running parallel to two railroad tracks. Then two electric speedrail lines. Atop
it all would be lanes for passenger aut
mobile travel.

Access would be controlled and ru
ways actually built into the structu
Passenger depots would be self-contain
as would all power and utility lines. W
a single right-of-way serving all grou
transportation, the highway could be bu
right through major cities, Bayer poin
out.

Although automobiles could whi
along at 100 miles per hour on top, t
fastest unit would be the electric pa
senger gondolas. Two tracks would ho
hydraulic boosters from which the go
dolas could be suspended, three per trai
One hundred eighty-seven passenge
could ride in each gondola, which wou
be based on aircraft design and equipp
with aircraft seats with safety belts f
speeds up to 250 miles per hour.

"The idea might sound futuristic
Bayer admits, "but everything needed f

uch construction has been built and ested."

He has submitted his idea to civic leadrs across the nation and indicates more han just passing interest. His idea is or private firms to build the unit and hen charge tolls. The cost? About one nillion dollars per mile.

ndustrial Expansion in the South

For the Regional Conference of the ederal Mediation and Conciliation Serve, held in Atlanta, Georgia, on March 0, 1956, Henry G. Baker, Jr., Commisoner, of Birmingham, Alabama presentd an extremely interesting and inrmational paper on "The Industrial xpansion in Region 3, F.M.C.S. Region comprises the following Southeastern tates: Alabama, Florida, Georgia, Misssippi, North Carolina, South Carolina, ouisiana, Tennessee and Virginia.

Mr. Baker's paper was very well arnged and explained economic and instrial changes that have developed in e Southland. His closing paragraph vidly portrays the great industrial exnsion that has taken place, and is going in that important area of these United ates.

"Henry Grady in speaking to a Boston dience about the turn of the Century ld of attending the funeral of a onellus, poverty ridden, Georgia dirt rmer.

'They cut through solid marble to make s grave, and yet a little tombstone they t above him was from Vermont.

'They buried him in the heart of a pine rest, and yet his pine coffin was imrted from Cincinnati.

'They buried him within touch of an on mine, and yet the nails in his coffin d the iron in the shovel that dug his ave were imported from Pittsburgh.

'They buried him by the side of the st sheep grazing country on earth and t the wool in the coffin bands and the ffin bands themselves were brought from North. They buried him in a New ork coat and a Boston pair of shoes and pair of breeches from Chicago and a irt from Cincinnati.

'The South didn't furnish a thing on earth for that funeral but the corpse and the hole in the ground.'

"Today that farmer could have a polished marble tombstone from 13 manufacturers in seven Southern states. He could have a fancy casket with nylon lining from 21 Southern manufacturers. The nails, shovels and other necessary hardware could be furnished by no less than 150 Southern steel fabricators or 100 foundries. The material for the coffin bands could be furnished by 1,000 Southern textile mills and of many fabrics. The burial dress could be in fashionable clothes made in over 600 apparel plants from Virginia to Louisiana. His shoes could come from a number of plants in Georgia, Tennessee and Virginia and be shined with polish made in several of our states. Not only that, but to add a flourish he could ride in a hearse made in Alabama, burning gasoline from Louisiana, and rolling on tires from Alabama, Mississippi or Tennessee."

Mr. Baker joined the American Association of Engineers when a student at the University of Alabama, and has served the Association in various capacities.

Engineers and Architects Day

The 1956 Engineers and Architects Day held at the Willard Hotel, Washington, D.C., on February 17th was sponsored by the D.C. Council of Engineering and Architectural Societies, the Washington Academy of Sciences, and the Washington Section of the Institute of Radio Engineers. The purpose of the gathering was to promote the Engineering, Architectural and Scientific professions in the Washington Metropolitan area; to increase the number of Engineering, Architectural and Scientific students in the area, and to call attention to the Engineering, Architectural and Scientific societies in the Washington Metropolitan area, as well as publicize career opportunities of the professions in the area. The Advisory Committee is made up of representatives of twelve professional societies, Henry Austin representing the American Association of Engineers.

Bakersfield College Engineers at banquet—guests of Union Oil Co. Seated at he table, reading from left to right are: Don Pon, treasurer, A.A.E.; John Frazer, distr engineer for Union Oil, Bob Gentry, secretary, A.A.E.; E. M. Hemmerling, advis A.A.E.; Sam Grinsfelder, vice president, Union Oil; Cliff Highman, president, A.A. Dr. Ralph Prator, president, Bakersfield College; Jere Graham, Sgt.-at-arms, A.A Insert: Group of Bakersfield College Engineers.

Bakersfield College Chapter

Secretaries of our Student chapters have been doing a splendid job in keeping Headquarters informed of their activities, and we like to publish the news-items more or less as they are prepared by the young students, so let's "tune-in" on Bob Gentry as he reports for Bakersfield, California:

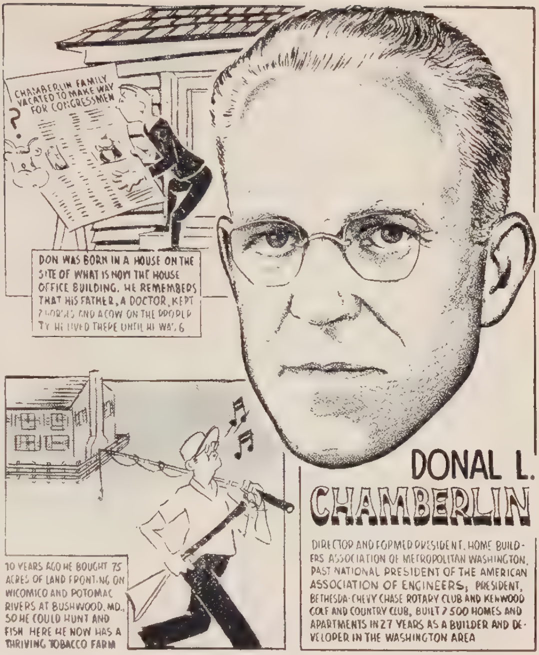
"This year we have another active group. Some of our activities thus far are: A field trip one week end to points of engineering interest in Los Angeles, trip to General Motors "Motorama," field trips of local engineering works, bi-weekly films, sponsoring jointly with the Bakersfield Professional Engineering Societies National Engineers' Week. During this week we displayed in the leading stores of the city, pictures depicting the life of a typical engineering student in college. Members of the club "plastered" the campus with posters and professional brochures announcing National Engineers' Week.

"During the week we were fortunate to be invited to two blue plate dinners at the swankiest places in town. On Tue day evening we were guests of the Eng neers' Club of Bakersfield and the Ke County Chapter of the California Socie of Professional Engineers. At that mee ing we heard an excellent discourse The Glamorous and Non-glamoro Aspects of Flight Testing, by Dr. W. Howland, flight test engineer, Lockhe Aircraft Corporation.

"On Friday night we were guests of t Union Oil Co. at a dinner, when the pri cipal speaker was Sam Grinsfelder, vic president of Union Oil Co. of Californi He discussed Engineering as a Caree and the Role of the Engineer in Societ

"On the social side of our program w have fielded a basketball team and thre bowling teams in inter-club competitio on our campus. The annual steak bak with our lady friends up Kern River Ca yon was a delightful occasion, as usua Just now we are beginning to make pla for our annual spring fishing trek to th high Sierras. Our destination has not ye been decided upon. We plan to leave ou campus at various hours some Frida afternoon and journey to some likely fish

ometimes our Members
hemselves cartooned, as
one of our past presi-
s, Donal L. Chamber-
sketched by Staff Artist
Auerbach of the
hington Star. A good
ess, but where is the
l smile?


CHAMBERLIN FAMILY VACATED TO MAKE WAY FOR CONGRESSMEN
?
DON WAS BORN IN A HOUSE ON THE SITE OF WHAT IS NOW THE HOUSE OFFICE BUILDING. HE REMEMBERS THAT HIS FATHER, A DOCTOR, KEPT 2 HORSES AND A COW ON THE PROPERTY. HE LIVED THERE UNTIL HE WAS 6
10 YEARS AGO HE BOUGHT 75 ACRES OF LAND FRONTING ON WICOMICO AND POTOMAC RIVERS AT BUSHWOOD, MD., SO HE COULD HUNT AND FISH. HERE HE NOW HAS A THRIVING TOBACCO FARM
DONAL L. CHAMBERLIN
DIRECTOR AND FORMER PRESIDENT, HOME BUILDERS ASSOCIATION OF METROPOLITAN WASHINGTON, PAST NATIONAL PRESIDENT OF THE AMERICAN ASSOCIATION OF ENGINEERS; PRESIDENT, BETHESDA-CHEVY CHASE ROTARY CLUB AND KENWOOD GOLF AND COUNTRY CLUB, BUILT 7500 HOMES AND APARTMENTS IN 27 YEARS AS A BUILDER AND DEVELOPER IN THE WASHINGTON AREA

spot in the hills nearby. The next
days will be spent in tempting the
-elusive trout to accept a tasty morsel
he end of a hook. Some refuse to stoop
ie use of "garden tackle." We all look
ard to a good time of fellowship on
occasion.

. M. Hemmerling, chairman of the
ge engineering department, is our
ser."

Chicago Chapter

icago Chapter has held regular
thly dinner meetings during the fiscal
, varying the style of meetings so as
ive members an opportunity to discuss
technical problems relating to engi-
ing. One of the most interesting meet-
was held in February, with William
Boyce, president, serving as chairman.
ious questions and suggestions had
announced in advance of the meet-
built around the theme: "Is there a
shortage of Engineers? If so, why the
ear Dead Line! Why the spread in
ies between recent graduates and the
rienced well qualified engineer?"

Members did themselves proud and upset the general theory that engineers are inarticulate. Much food for thought was put before the group, and many angles of this important subject were developed and suggested for discussion at the April meeting. Meetings of this kind cannot help but interest engineers as well as encourage them to actively participate in a solution of their social and economic problems. Serving with Mr. Boyce are the following officers: B. E. Krieg, Vice-President; George C. Madgouranis, Secretary; Herbert G. Bodie, Treasurer, and Martin H. Bodie, Louis J. Lucas and Peter Demay, directors.

F. C. Menk, a member of American Association of Engineers for many years, has been appointed engineering consultant to the vice president of operations, of Island Creek Coal Company, Holden, W. Va. He was appointed director of engineering in 1949. Mr. Menk will be remembered pleasantly by members of the Association who attended the Annual convention held in Huntington in 1932.

Photograph taken at one of the San Bernardino Valley Chapter, A.A.E. monthly meetin when C. Hannah and Mr. R. Loveland of Portland Cement Company, Colton, Californi (to the far right in the picture) were the speakers. From left to right are: Mr. H. James advisor, J. Land, P. Brissenden, J. Gangwer, H. P. Bausch, R. Walters, K. Marshal J. Pierson, H. Kopp, R. Povah, B. Powell, S. Millard, R. Rodriquez, D. Freeman, an D. Brown.

San Bernardino Valley Chapter

Hans Peter Bausch, secretary-treasurer of our Student Chapter at San Bernardino Valley College, California, sends us an interesting letter about his chapter which we are pleased to quote in part for the benefit of other student groups.

"Our activities," says Mr. Bausch, "are mainly concerned with monthly meetings for which we always have a guest speaker representing some branch of the industry. In that way we become acquainted with the possibilities and tasks of the engineering profession. In addition we have monthly excursions to industries and plants in our area. For example, during the past few months we visited a steam powered plant of the California Electric Power Company in Highgrove, the plant of the California Portland Cement Company in Colton, and are hoping to make a trip through the Hunter Douglas Corporation plant in Riverside.

"Sometimes we attend meetings of the San Bernardino Senior Chapter, A.A Our meetings have been most success and we hope that we may be able to c tinue having guest speakers and tak these interesting tours.

"Elected to serve our group this y are the following: David Brown, Pre dent; Robert N. Graber, Vice Preside Sidney W. Millard, Program Chairm and Gordon Austerman, Excursion Cha man."

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Chaffey College

)ne of our active student chapters is Chaffey College, Ontario, California. was founded many years ago and spon- ed by instructors at the college who ieved in the aims and objectives of the ierican Association of Engineers. Much the chapter's success during later years st be credited to a fine young man who consistently kept the Chapter "on its t," making it a credit to the College l to the engineering profession.

Ie is Commander Art Flum, a gifted affable person as well as able leader young engineers. We asked Mr. Flum furnish us with a photograph for pub- tion in PROFESSIONAL ENGINEER, and reluctantly but oh, so dutifully obeyed. snap-shot on this page was taken by chapter's president, Steve Miller. In summer of 1955 Mr. Flum was pro- ed to the rank of Commander in the val Reserve. At the time he was on a cial assignment teaching at the Naval cer Candidate School at Newport, R.I. Reserve duty throughout the year is navigation instructor on the staff of Naval Reserve Officers School, lo- d on the Chaffey College campus. iough most of his experience during rld War II was in air navigation, he for some time found himself con- ed with the marine navigation.

he engineers at Chaffey are fortunate ed to have the interest and leadership Commander Flum, and we are sure the boys sincerely appreciate his co- ration and interest in their group.

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zona State University Chapter

ynn E. Dryer, Secretary of the Stu- Chapter, A.A.E., at the Arizona e University, writes an interesting let- to Headquarters briefly describing e of the group's activities thus far year. "The top event of the year," Dryer is a trip we are planning to lder Dam with a barbecue chicken er, and a night at Las Vegas, . . . Oh, yes, two of our members are tied first place in the section for papers have written for the I.I.E. They are h Magnanat and Dave Evans.

Ve have had some fine talks on vari- subjects including Electrostatic Separation of Minerals, Digital computers, and information on positions.

"Officers for this semester are: President, George Rowe; Vice President, Jerry Hodges, and Secretary-Treasurer, L. E. Dryer."

Comdr. Art Flum, Adviser, Chaffey College Engineers Club, A.A.E.

Long Beach Chapter

Long Beach Chapter, A.A.E., has just published an attractive membership roster, listing among other things chapter officers, and committee chairman, also a list of all the engineers who have served the Chapter since its inception in 1920, a number of whom are still members of the group.

Preceding the roster is a comprehensive statement of the aims and objectives of the American Association of Engineers. The chapter has three Honorary members: Noble Hines, Chemistry teacher, Long Beach City College; Robert Shoemaker, Chief Engineer, Long Beach Harbor Department, who served the Chapter as president in 1928-1929, and Robert B. Taplin, Civil Engineer, who followed Mr. Shoemaker as president in 1929-1930.

BOOKS FOR ENGINEERS

Order your technical books from A.A.E. Book Department

Handbook of Industrial Engineering and Management: W. Grant Ireson, Prof., Stanford University, and Eugene L. Grant, Prof., Economics of Engineering, Stanford University, Prentice-Hall, Inc. $16.00

The most comprehensive work in its field; an integrated guide to the methods and procedures of scientific management. Such important subjects as managerial economics, cost control, manpower management, motion and time study, as well as production planning are intelligently presented. Trade union outlook on industrial engineering is discussed by William Gomberg, an authority in the field. Exceedingly well prepared.

Handbook of Engineering Materials: prepared by a staff of Specialists, edited by Douglas F. Miner, Dir., Div., Student Personnel and Welfa Carnegie Inst. of Technology, a John B. Seastone, Mgr., Natls. Eng Dept., Westinghouse Electric Co. Jo Wiley and Sons. $17.50

This valuable handbook is desig to meet the need for a single source authentic and useful information on usual materials of manufacturing a construction. Compiled at a professio level understandable to engineering signers of products or construc projects, research workers and adva students, this book cannot help bu an outstanding book for any engine library. The authors have had pract experience in the field, and have gi the profession an excellent and infor tive treatise.

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Deterioration of Materials: Glenn A. Greathouse, director and Carl J. Wessel, Ass't. Director, Prevention of Deterioration Center, Div. of Chemistry and Chemical Technology, National Academy of Science, National Research Council. Reinhold Publishing Co. $12.00

This is the first book ever published to cover all aspects of deterioration prevention and was prepared with the collaboration of 24 specialists. The book describes and analyzes the causes of deterioration in materials and presents proven techniques for preventing or retarding such deterioration. Illustrations have been used freely and the material has been exceptionally well indexed. Appendices are provided on climatic systems and on specifications useful for those doing business with government agencies. Of value, in fact, to everyone interested in preserving his own belongings or property charged to his care.

Plastics Progress 1955: Papers and Discussions at the British Plastics Convention, June, 1955. Philosophical Library. $17.50

The authors have brought together in this 432-page book some of the more important recent developments in the field of plastics. There are chapters on Polymer structure and properties; expanded plastics; thermoplastics; extrusion; work study and productivity; injection moulding; patents; foundry resins and glass reinforced plastics. A great deal of valuable information for engineers and others interested in the field of plastics.

Mathematics, Basic for Science and Engineering: Paul G. Andres, and Haim Reingold, Illinois Inst. of Tech., and Hugh J. Miser, Operations Analyst, U.S. Air Force. John Wiley & Sons, Inc. $6.75

This book is a revision of an earlier book by the same authors entitled Basic Mathematics for Engineers. The text has been revised to insure that it meets the needs of scientific as well as engineering curricula. The portion of the book devoted to analytic geometry has been expanded. The mathematical principles are illustrated with applications chosen from a wide variety of scientific and engineering fields. More than 7000 exercises are included. Each chapter closes with a brief summary of the material treated. A good book on math.

Statistical Analysis in Chemistry and the Chemical Industry: Carl A. Bennett, Ch. Statistician, G.E. Co., Richland, Wash., and Norman L. Franklin, Lecturer in Chemical Engineering, Univ. of Leeds, England. John Wiley & Sons. $8.00

Here is a book that starts from the beginning of the subject and, dealing with each topic as completely as possible, gives the theoretical background and derivation of the analytical methods together with conputational procedures. Many recent advances in the field of applied mathematical statistics have been included in the text, and excell examples from the chemical field ha been presented.

Traffic Engineering: Theodore M. M son, late Director; Wilbur S. Smi Assoc. Director; and Frederick Hurd, Director, respectively of t Bureau of Highway Traffic, Yale U versity. McGraw-Hill Book Co. $12

The authors have prepared an exc lent book on one of the newer fiel Traffic Engineering. It is one of first attempts to bring together inte simple matrix the general knowledge the field. Highway traffic phenomena explained by simple and elementa analysis, and although the book is se technical in nature, it is also practi to the extent that an understanding theory and its application leads to intelligent solution of traffic proble An excellent reference for those gaged in highway traffic plann operations and administration.

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lern Physics: Robert L. Sproull, ssociate Professor, Physics, Cornell niversity. John Wiley & Sons. $7.75

ı reality this is an excellent textbook engineers. The book is organized self-study as well as for a formal gram, and features a large number problems and a good selection of rences at the end of each chapter. text was developed from notes used course for engineering undergrad- s at Cornell and in courses for tical engineers at Westinghouse, ning Glass, and Sylvania, and is efore analytical in approach.

ıral Tangents to Eight Decimal aces for Every Second of Arc: R. B. ıey, Parker and Company. $15.00

ıe author is engaged in private tice, is an Engineer and Surveyor, specialized in boundary surveys of nercial and industrial building sites surveys in connection with land title rance, for a number of years. A must book for Surveyors, Engineers, Architects, Computers and Draftsmen, saves valuable time and eliminates the probability of mistakes.

Benjamin Henry Latrobe: Talbot Hamlin, an architect and noted historian of architecture, Prof. Emeritus, School of Arch., Columbia University. Oxford University Press. $15.00

The first full-scale biography of America's first Professional Architect, is a most interesting story of a brilliant architect and the designer of many of the country's most distinguished buildings. Mr. Latrobe was also an artist and engineer. Through Thomas Jefferson he was appointed Surveyor of the Public Buildings in the U.S. and had complete charge of the design and construction of the United States Capitol from 1803 to 1812 and from 1815 to 1817. A book that every American should read.

Chemical Equilibrium, the Principles of, With Applications in Chemistry and Chemical Engineering: K. G. Denbigh, M.A., D.Sc. Prof., Chemical Technology, Univ. of Edinburgh, and of Chemical Engrg., Herlot-Watt College, formerly University Lecturer in the Dept. of Chemical Engineering, Cambridge. Cambridge University Press. $7.50

A textbook of chemical thermodynamics suitable for university students of chemistry and chemical engineering. Part I is an account of the laws of thermodynamics and the various thermodynamic functions and their transformation formulas. Part II deals with the applications to reaction and phase-equilibria and the theory of ideal and non-ideal solutions. Part III is a short introduction to statistical mechanics with applications to gases, perfect crystals, absorption and regular solutions.

Diesel Engine Principles and Practice: Edited by C. C. Pounder, Director and Chief Tech. Engr., Harland & Wolff, Ltd., Belfast, and written by 23 specialists in the English Diesel Engine field. Philosophical Library. $17.50

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Electro-Magnetic Machines: R. Langlois-Berthelot, M.I.E.E., M.A.I.E.E., Ch. Res., Engr., Production and Transformation Equipment at "l'Electricite de France," Prof., El. Engrg. at Ecole Superieure d'Electricite, Paris. Philosophical Library. $15.00

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